

# CF 51

## Heat and cooling Meter Calculator

The CF 51 is a stand-alone calculator issued from the Itron CF Heat Meter Family and represents a technology step forward in the metering of thermal energy.

Easy to handle, this calculator will turn your investment into benefits.

### Applications

Heating, Cooling and Combined, return and supply positioning.

### Standards Compliance

- > MID 2004/22/EC Module D
- > Env. Class C acc. EN 1434
- > PTB approved

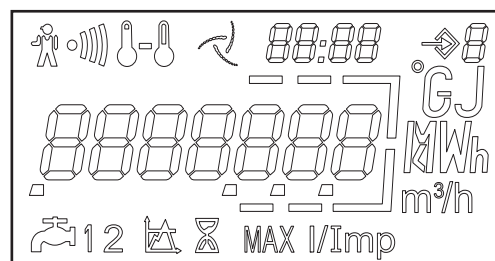
### Benefits

- > Simple to use
- > Easy reading
- > Upgrade with option boards

## Multifunctional Display

The multifunctional display facilitates easy reading, providing fast and clear access to the most important billing data. The display enables the diagnosis of failures alarms from a single glance.

The LCD has a long life time and through a push button you get easily access to each level of data.



### ▶ Loop 1

#### Billing Data

- > Energy
- > **Cooling energy\***
- > Volume
- > LCD test
- > **External water meter 1/2\***

*\* Optional*

### ▶ Loop 2

#### Additional Information

- > Flow rate
- > Power
- > Supply temperature
- > Return temperature
- > Temperature difference
- > Operating time
- > **Power peak date + time\***
- > **Flow peak date + time\***
- > **Temperature peak date + time\***
- > **Instantaneous bonus\***
- > **Cumulative bonus\***
- > Time in alarm
- > Temperature alarm
- > Flow alarm
- > Overflow alarm
- > Power supply alarm
- > **Current time + date\***
- > M-Bus primary address
- > M-Bus secondary address
- > M-Bus baud rate
- > **Pulse value water meter 1/2\***

*\* Optional*

### ▶ Loop 3

#### Fixed Date Reading

- > Fixed date energy 1...13
- > Fixed date cooling energy 1...13
- > Fixed date volume 1...13
- > **Fixed date water meter 1/2 1...13\***
- > Software version

*\* Optional*



- > *Modular Design*
- > *Plug and Play Communication options boards*
- > *Bonus calculator*
- > *Max. demand manager*
- > *2 wire*

## CF 51 Energy Calculator

Metrology exceeds	PTB, DRIRE, OIML, EN 1434
Temperature range	0 ... 180 °C
Temperature difference	3 ... 160 K
Temperature sensors	Pt100 or Pt500, 2 wires
Display	LCD - 7 digits
Back-up memory	EEPROM
Power supply (optional)	6 or 12 year Lithium battery - 230 V main power supply or power supply by M-Bus
Protection class	IP64
Environmental class	Class C acc. EN 1434
Ambient temperature	5 ... 55 °C
Pulse value (programmable)	1 / 2.5 / 10 / 25 / 100 / 250 / 1000 L
Optical interface	EN 60870-5 / M-Bus protocol

## Option Boards Characteristics

### M-Bus

Standard reference	EN 1434-3
Baud rate	300 to 2400 baud
Data in standard mode	Energy, Volume, Flow, Temperatures (supply, return, difference), Time in error, Operation time, Date and time, Volume of water meters 1&2, Firmware version



### Pulse inputs for water meters

Pulse value (independent per input)	1 / 2.5 / 10 / 25 / 100 / 250 / 1000 L/imp
Pulse detection	Contact closed $R \leq 500 \Omega$ Contact opened $R \geq 100 \text{ k}\Omega$ Maximum frequency: 10Hz

### Energy and Volume Pulse output

Pulse value	Repetition of display Energy from 1KWh to 1MWh Volume from 10 L to 1 m3
-------------	---

### Modem application

PSTN Network, meter calls programmed phone number at a pre-defined time.

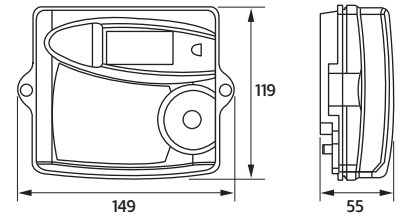
### LON application

Transceiver	TP/FT-10
Transmission speed	78 Kb/s

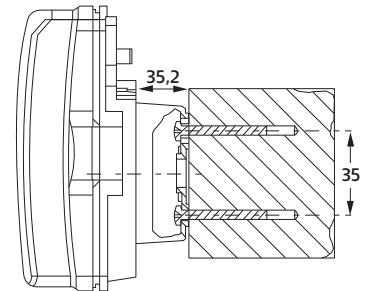
### Radio Applications

Compatibility	AnyQuest radio walk-by system EverBlu radio fixed network system (Q2-2010)
Frequency	433 MHz
Protocol	Radian open protocol

## Dimensions



### > Wall mounting



## Option Boards

The CF 51 is pre-equipped for communication. Different option boards can be plugged simply to the meter and start working automatically.

The following option boards are available:

- > Board 1: **M-Bus + E/V Repetition**
- > Board 2: **M-Bus + 2 external Water meters**
- > Board 3: **Modem + 2 external Water meters**
- > Board 4: **LON + 2 external Water meters**
- > Board 5: **Radio + 2 external Water meters**
- > Board 6: **M-Bus + 2 external water meters + power supply by MBus**

## About Itron Inc.

Itron Inc. is a leading technology provider to the global energy and water industries. Our company is the world's leading provider of metering, data collection and utility software solutions, with nearly 8,000 utilities worldwide relying on our technology to optimize the delivery and use of energy and water. Our products include electricity, gas and water meters, data collection and communication systems, including automated meter reading (AMR) and advanced metering infrastructure (AMI); meter data management and related software applications; as well as project management, installation, and consulting services. To know more, start here: [www.itron.com](http://www.itron.com)

For more information, contact your local sales representative or agency.

Allmess GmbH  
Am Voßberg 11  
23758 Oldenburg i.H.  
Deutschland  
Phone: 0 43 61/62 5-0  
Fax: 0 43 61/62 5 -250  
[www.itron.com](http://www.itron.com)